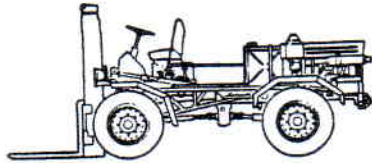


GA707
RAF Eager Beaver Fork
Lift Truck



CASTING GENERAL INSTRUCTIONS

The white metal castings that make up the bulk of this kit are made with a high quality alloy to ensure that the fine detail is accurately resolved. However this metal is hard and requires careful handling. Any distorted parts can be gently bent back to true, but excessive pressure will break the part. Several smaller parts are duplicated in case of breakage or loss.

Any mould marks can be cleaned off the components with a fine Swiss file, or a sharp scalpel blade used as a scraper or cutting tool. Great care should be exercised as the parts can be distorted or broken if excess pressure is applied.

Assembly can be done with a low temperature soldering iron, but unless you have a lot of prior experience do not attempt to assemble these models with such a tool. Modern cyanoacrylate and epoxy glues are just as efficient at joining these parts, and allow for some adjustment or even disassembly if a mistake is made. A slip with a soldering iron will result in irreparable damage!

Major parts can be held together with sticky tape or modelling clay while glue is applied and allowed to set. Smaller parts can be held in place with tweezers, or secured with a scalpel blade tip, dipped into a drop of adhesive and placed on the model. With Cyanoacrylate glues the joint will be made immediately, so be sure the parts are correctly located! Debonding agents can be used should an error be made, or the joint can be parted with careful levering with a blade, but be sure all hardened glue is removed before the joint is remade. Otherwise the part will not seat correctly, and the new glue will not set well.

ETCHING GENERAL INSTRUCTIONS

The photo etched parts included in this kit are made from 8 thou. (0.2mm) brass, and require careful handling during assembly. Again, several of the smaller parts are duplicated in case of loss or damage.

To remove parts from the frame, use a very firm cutting board surface, perspex, thick plastic card or a piece of plate glass will be ideal, and a strong sharp blade; a Stanley knife or small chisel. Place a finger tip, or piece of wood, on the part required, and carefully cut through the tags joining it to the frame. The finger or wood is there to stop the part flying off your work surface as the cut is made! Use a firm vertical pressure on the blade, and be very careful not to slip. Provided the edge is sharp, very little force will be needed. Any tag scars can be cleaned off with a fine file, holding the part in a pair of pliers to prevent distortion.

Folding of parts can be done in several ways, depending mainly on the size of the part concerned. Most folds are indicated by a half-etched groove on the reverse side. Support the part up to the groove with a firm grip, using pliers or tweezers for smaller parts, the edge of a steel rule or the jaws of a vice for the larger ones. Then using the flat of a scalpel blade, or (another!) steel rule, gently push the protruding part over until it is at the required angle. Check the instructions below for more detailed descriptions for each particular part. Remember this method depends on the parts being gripped and supported very firmly; a slip will probably distort the part beyond repair.

TOOLS YOU WILL NEED FOR THE ASSEMBLY OF THIS KIT

Sharp bladed craft knife, several spare blades, Stanley knife or small chisel, tweezers, small pliers, 6 inch steel rule, flat and round Swiss files, fine scissors, good quality paint brushes (size 0 or 2). A small vice will be needed too.

PAINTING SUGGESTIONS

Metal parts are best primed with an etching primer prior to application of the colour finish. Suitable primers are available from some specialist model shops, especially railway shops, or from car accessory shops. These paints are usually cellulose based and will require suitable thinner and brush cleaner; do not use white spirit, it won't work!

These primers chemically bond to the metal giving the next layer of paint a much more secure grip. Enamels and acrylic paints can be applied over cellulose surfaces but not the other way round! Cellulose solvents will attack other paints and will blister.

ACKNOWLEDGMENTS

Our grateful thanks to Andy Kime at RAF Lyneham for his assistance with access to the real vehicle, and his help and patience with our survey. Also thanks to Mark Atrill for his help with arranging our visit to RAF Lyneham.

Instruction drawings by A F E Perry, © PP Models (Hambrook) 1986

COLOUR NOTES

These notes are based on the vehicle studied at RAF Lyneham in mid-1986. These colours will be applicable for most examples of this vehicle, but minor details may differ. If in doubt, check your references! Many views are to be found in the pages of the specialist books and magazines, far too many to list here, but RAF Yearbooks, RAF feature books and any material referring to Harriers and Hercules are likely to illustrate the Eager Beaver, if only in the background!

Vehicle Overall	- Matt Dark Green
Bonnet, Air Filter Cover, Latches, Fuel Tank Caps	- Yellow or Light Grey
Steering Wheel, Seat, Prop-Shafts, Batteries Control Knobs	- Black
Tyres, Hydraulic Hoses	- Dark Grey Rubber
Wheel Nuts, Lift Hook Rear Reflectors	- Red
Traffic Indicators	- Orange
Rear Differential Cover, Reversing Lights	- White
Exhaust Silencer	- Rust
Headlight Lenses, Ram	- Silver

Parts List

Castings

- C1 Chassis side frame left
- C2 Chassis side frame right
- C3 Top chassis platform
- C4 Rear cross piece
- C5 Tow hook brace
- C6 Tow hook brace
- C7 Axle frame support
- C8 Axle frame support
- C9 Front cross piece
- C10 Front cross plate
- C11 Lift cross tube
- C12 Tow hook
- C13 Lower cross piece
- C14 Battery
- C15 Battery
- C16 Rear axle frame
- C17 Rear prop shaft
- C18 Transfer box
- C19 Oil filter
- C20 Front axle
- C21 Front prop shaft
- C22 Engine
- C23 Radiator
- C24 Fuel tank
- C25 Fuel tank
- C26 Exhaust silencer
- C27 Lift mast
- C28 Lift column
- C29 Tine frame
- C30 Tine
- C31 Tine
- C32 Lift hydraulic ram
- C33 Drivers platform
- C34 Seat box
- C35 Seat
- (C36 driver figure, not included, available separately)
- C37 Steering column
- C38 Instrument block
- C39 Searchlight
- C40 Headlight
- C41 Headlight
- C42 Fire extinguisher
- C43 Air filter
- C44 Wheel/tyre
- C45 Wheel/tyre
- C46 Wheel/tyre
- C47 Wheel/tyre

C48 Rear axle

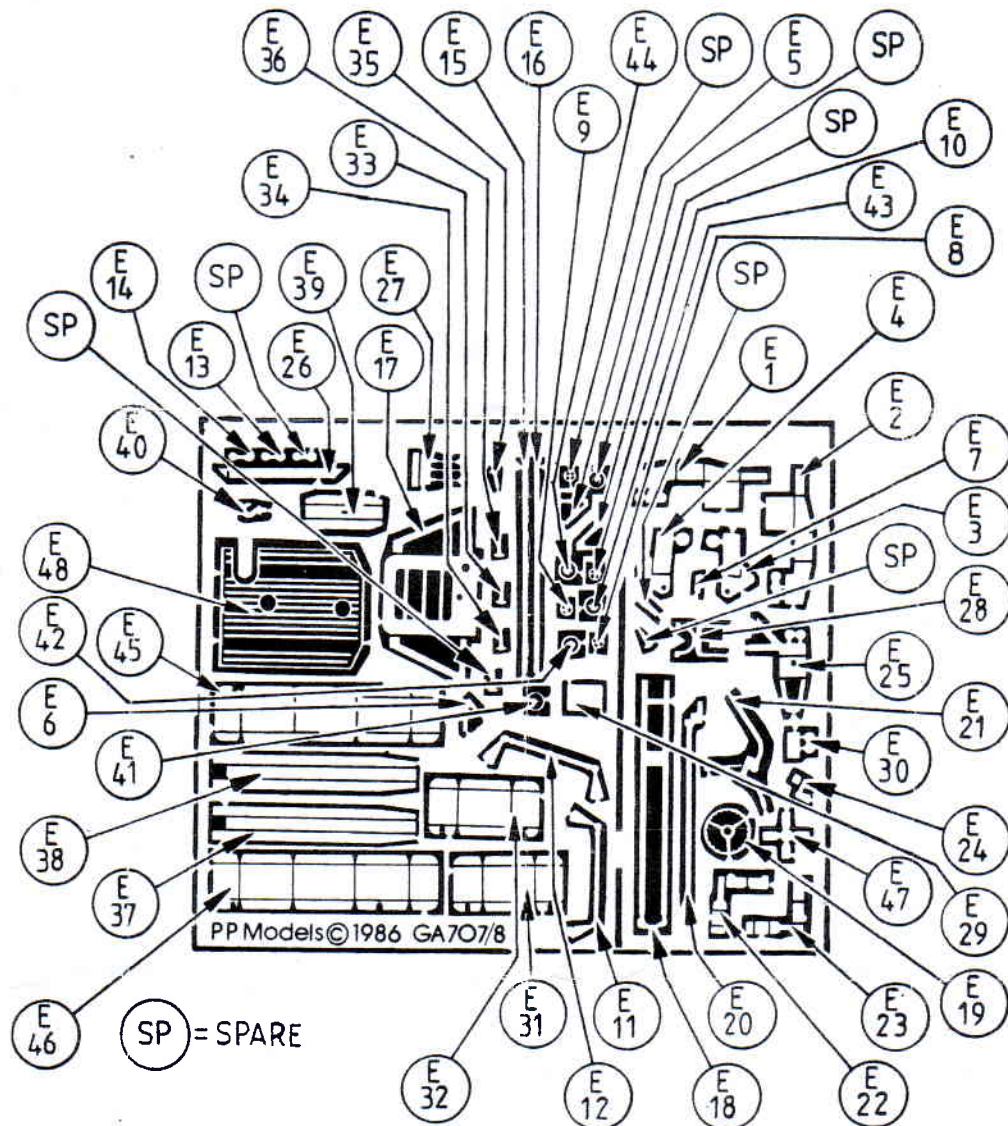
Misc. Parts

- M1 Styrene tube 1.5mm long
- M2 Styrene tube 2.0mm long
- M3 Styrene rod
- M4 Styrene rod (all cut from piece supplied)
- M5 Wire for Hydraulic lines etc.
- M6 seat belts (Cut from instruction sheet)
- Decal sheet

Etchings

- E1 Battery box
- E2 Battery box
- E3 Tie down eye
- E4 Tie down eye
- E5 Tine extension bracket
- E6 Tine extension bracket
- E7 Chassis side cover
- E8 Steering control
- E9 Steering control
- E10 Steering control
- E11 Steering linkage
- E12 Steering linkage
- E13 Fuel tank cap
- E14 Fuel tank cap
- E15 Fuel tank strap
- E16 Fuel tank strap
- E17 Radiator cover
- E18 Mast rear detail
- E19 Steering wheel
- E20 Gear linkage
- E21 Handbrake/range selector
- E22 Clutch pedal
- E23 Brake pedal
- E24 Accelerator pedal
- E25 Headlight platform
- E26 Platform step
- E27 Lift control levers
- E28 Searchlight frame
- E29 Number plate
- E30 Sidelight bracket
- E31 Front mudguard
- E32 Front mudguard
- E33 Bonnet latch
- E34 Bonnet latch
- E35 Bonnet latch
- E36 Bonnet latch
- E37 Tine extension
- E38 Tine extension
- E39 Lifting beam
- E40 Lifting hook
- E41 Hub cap
- E42 Hub cap
- E43 Hub cap
- E44 Hub cap
- E45 Rear mudguard
- E46 Rear mudguard
- E47 Fan
- E48 Bonnet

Instruction sheet



This highly detailed kit of white metal parts, photo etchings, wire, decals and instruction sheets has been designed to enable you to make a fully detailed model of this widely used piece of ground equipment. Used by the RAF with its Harrier squadrons, as well as loading the heavy transport aircraft like the Hercules, it is also widely used by the other armed forces for load handling in the field.

We hope that you will enjoy building this kit, and feel sure that it will be a useful and realistic addition to your collections, as well as an enjoyable model to build. If you have any comments regarding this model, or have any suggestions regarding this or our other products, or ideas for future releases please do not hesitate to contact us. We have a number of kits in preparation, so watch our adverts in the modelling press. Also we release a news letter every few months, and if you would like to receive this publication, please send us your name and address.

Whilst every care has been taken in the packing of this kit, please check the parts before assembly. Any damaged parts will be replaced by return of post, on receipt of the damaged part. While several spare parts are included, additional parts are available at a nominal charge should you damage anything during assembly, write for details stating the parts required.

A catalogue of our kits is available for 70p , from us directly or from your supplier.

1 CHASSIS ASSEMBLY

- a) Select the bag containing the chassis castings. Check that all parts are present against the parts list above. Clean up any moulding marks and carefully straighten any distorted parts.
- b) Carefully assemble the main chassis side frames C1 & C2, with the top chassis platform C3, rear cross piece C4, front cross piece C9 as shown on diagram 1. Notice casting lugs on the ends of several of these cross pieces should be removed before assembly, these are to ensure the parts cast correctly. Slight notches are moulded on the inside surface of parts C1 & C2 to locate these cross pieces. Ensure the chassis is level and square before proceeding! Fig 1
- c) Glue into place the lift cross tube C11, front cross plate C10, under chassis cross piece C13, rear axle frame supports C7 and C8. Again ensure all parts are correctly aligned before glue is applied.

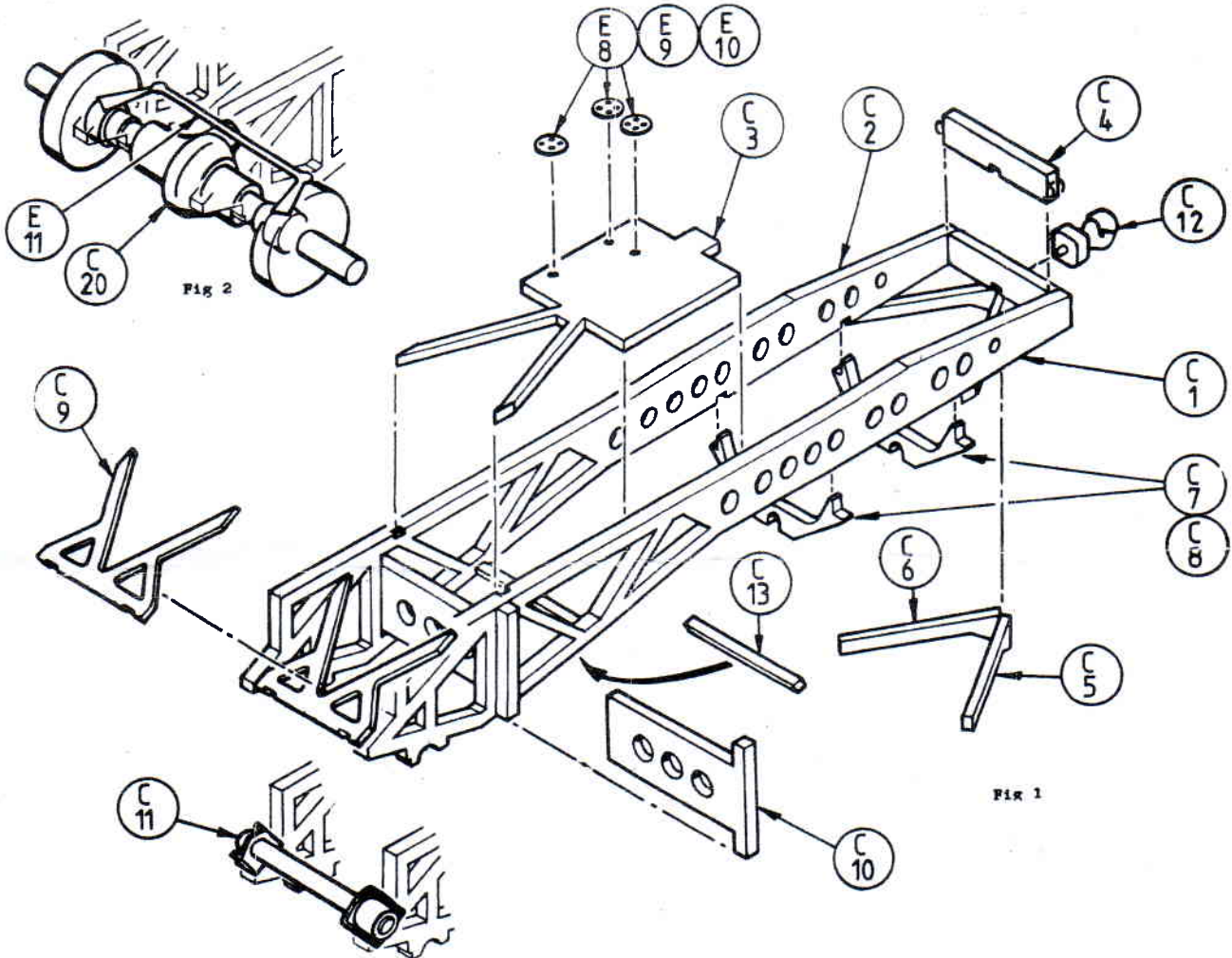


Fig 1

- d) Locate the tow hook braces C5 and C6, diagonally under the rear chassis ensuring the thickened ends are together centrally under the rear cross piece. These parts are moulded slightly over-length, and when glued into place should have the forward ends trimmed back to the sides of the chassis. See diagram. Then glue tow hook C12 into place on the rear of the rear cross piece.
- e) Locate the front axle C20 into the front mountings, trimming the mountings if required with a fine round file. Check the axle is level and that the transmission housing is correctly aligned before applying the glue. Then pass front steering linkage E11 through the chassis and locate between the ends of the axle, as shown. When in the correct position, glue into place. Fig 2
- f) Glue the steering setting controls E8, E9, E10 onto the top surface of the top chassis platform. Locations are indicated on the casting.

2 TRANSMISSION ASSEMBLY Fig 3

- a) Locate the rear axle steering linkage E12 onto the rear axle C48 as shown, bending the linkages inwards slightly to fit between the brake drums, and glue into place. Then test fit the axle into the rear axle frame C16, trimming with a round Swiss file if required, then glue into place.
- b) Locate the rear axle frame C16 in between the axle supports on the chassis. Place the chassis on a flat surface so that the axles rest on the ground, and apply adhesive to the pins located in the supports. This will ensure the axles are level; if the model is to be displayed on rough ground, this should be simulated at this point so that any suspension deflection can be accurately portrayed.
- c) Select the rear prop shaft C17 and transfer box C18. Trim the ends of the shaft to fit into the locating holes in the axle and transfer box, and glue these parts into place. The transfer box is centrally placed under the top chassis platform C3.
- d) Similarly trim, locate and glue the front prop shaft C21 into place between the transfer box C18 and front axle C20.

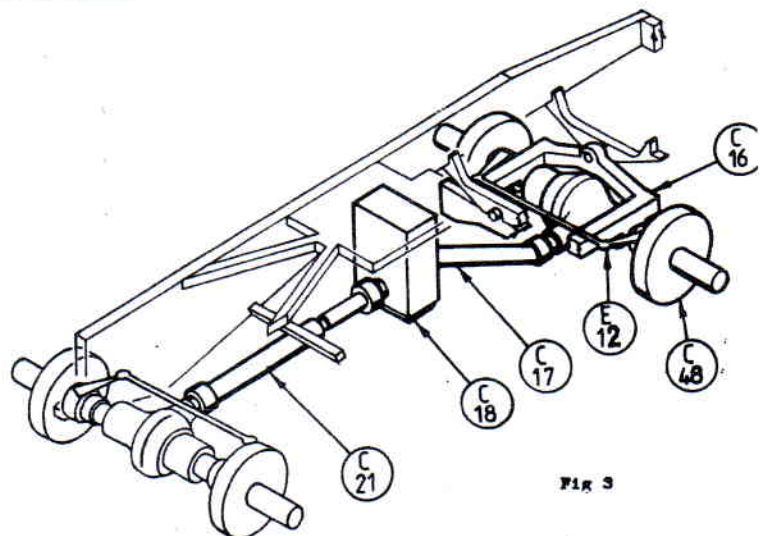


Fig 3

3 ENGINE ASSEMBLY Fig 4

- a) Locate the radiator C23 onto the chassis assembly, between the side frames C1 and C2, and butting up behind the rear cross piece C4. Glue into place.
- b) Select the engine cooling fan E47 and carefully twist the blades as shown. Then locate the fan onto the rear of the engine block C22 and glue into place.
- c) Lower the engine block C22 onto the rear axle support frame C8 and glue into place. Check the block stays level, supporting it with tps or modelling clay if necessary until the glue has cured.
- d) Glue the fuel tanks C24 and C25 together along the inner upper edges, ensuring the outer sides are vertical. As a check, the tanks should be slightly narrower than the overall chassis width. Trim the inner upper edges with a flat file if required.
- e) Locate the filler caps E13 and E14 into place onto the tanks and glue.

- f) Select the fuel tank straps E15 and E16 and carefully bend over the fuel tanks C24 and C25, as shown. Trim to length and then glue into place. Then glue the tanks into place on to the chassis, level with the rear of the top platform C3.
- g) Fold up the battery boxes E1 and E2, and tie-down eyes E3 and E4 as shown on the diagram. Note these parts are mirror images for left and right sides, and should be folded with the half-etched grooves on the inside of the boxes, the light clusters being ungrooved to make a stronger joint. Then glue these parts into place on the rear outside surfaces of the chassis, as shown.
- h) Fold the side braces of the radiator cover E17 and then glue into place onto the rear chassis cross piece, the braces being attached to the chassis sides. Note the top of the radiator cover E17 should be level with the top of the fuel tanks C24 and C25.
- i) Glue the bonnet latches E33 - E36 onto the radiator cover and to the sides of the fuel tanks as shown.
- j) Glue the oil filter C19 into place under the top chassis platform C3 as indicated.
- k) Glue the small cover E7 onto the right side of the chassis, covering the foresnet hole as shown.

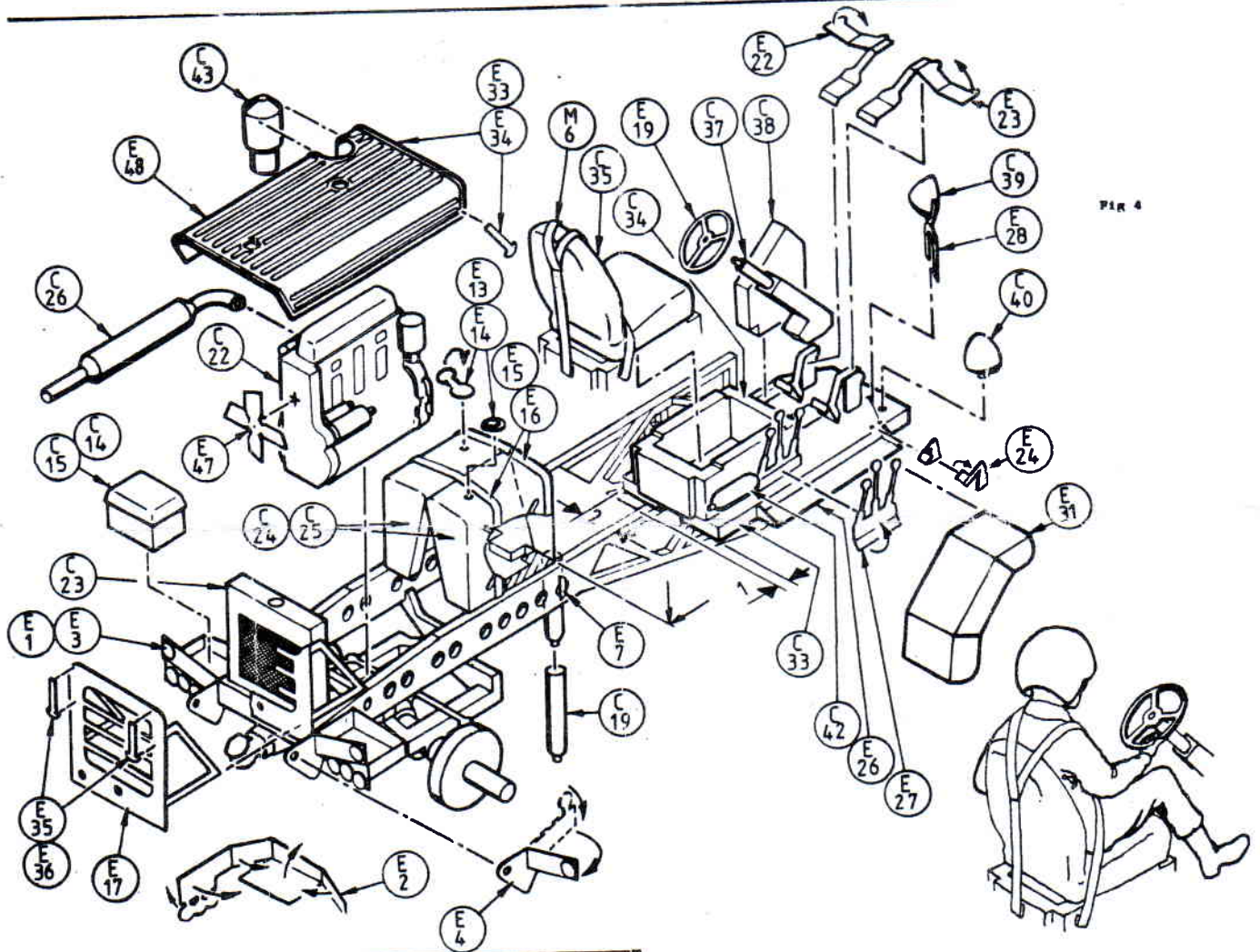


Fig 4

4 DRIVERS PLATFORM ASSEMBLY

NOTE: A driver figure is available for this kit as a separate item number FIG701.

If this figure is to be used, the various details such as the foot controls, steering wheel etc., have to be attached to the platform after the figure has been fitted into place. Assemble the seat box, platform, seat, instrument block and steering column (parts C33,34,35,37 and 38). Then check the fit of the driver, paint the figure and the assembled platform. The rest of the details can then be assembled as detailed below, and painted.

- a) Locate the seat box C34 onto the platform C33. Trim the lugs until a good fit is obtained and then glue into place.
- b) Glue into place the instrument block C36, and the steering column C37 into their respective slots in the platform C33.
- c) Locate the steering wheel E19 onto the column C37 and glue into place. Then carefully fold up the pedals E22, E23 and E24, and glue into place on the platform C33.
- d) Glue the seat C35 onto the box C34. If the driver figure C36 is to be used, (not included but available separately) check the fit onto the seat before gluing into place.
- e) Fold the ends of the step E26 and glue into place on the side of the platform C33 as shown. Then fold the right side indicator/sidelight bracket, E30 as shown and glue into place on the front of the platform C33. Locate the number plate E29 onto the front of the instrument block C36 as shown. (Illustrated on Fig 9)

- f) Glue the searchlight frame E28, searchlight C39 and headlight C40 into place on the front of the platform.
- g) Carefully bend the gear linkage E20 as shown, and glue onto the side of the seat box C33. The handbrake/range selector lever E21 can then be glued into place on the seat box C33, the lever being folded up to the vertical and glued into place.
- h) The lift controls E27 should have the lower section folded up to lay back to back with the base, giving a double thickness. Then glue the controls into place on the right side of the seat box C33. The levers can be bent very slightly outwards. Then glue the fire extinguisher C42 into place on the outside of the seat box C33.
- i) The platform assembly can then be glued into place on the right chassis side, C2. See the diagram for exact position details. Notice that the gear linkage E20 passes between the fuel tanks and rests on the front of the engine block C22. The range selector E21 passes under and in front of the top platform C3 towards the transfer box C18.
- j) Chassis is best painted at this stage. See colour notes for details.

5 LIFT MAST ASSEMBLY Fig 5

- a) Glue the mast rear detail E18 onto the back of lift column, C28, as shown.
- b) Trim the front face of the lift mast C27 so that it slides into the lift column C28, behind the etched detail E18. Then trim the moulded loop on the lift mast to a half loop, as illustrated.
- c) Slide the tines C30 and C31 onto the tine frame C29 as shown, and glue into place. Check the position of the lift required, and then glue into place onto the lift column C28, then the column to the mast C27. Note that the frame is supported by chains which run over the two pulley wheels at the top of the column. As the column is pushed up the mast by a hydraulic ram column. Check within, the chains pull the frame up by twice the distance. Check the illustration and box top photo for examples of this; the chains can be simulated on the model with the copper wire M5 supplied.
- d) Test fit the assembled lift onto the lift cross tube C11, and test the lift hydraulic ram C32 for fit between the location on the lift mast and the notch inbetween the diagonal arms of the top chassis platform C3. Adjust the fit by trimming the lug on the ram and the notch until a satisfactory fit is obtained. It is better to paint the lift assembly and then when dry, glue to the lift cross tube C11, and the hydraulic ram C32 to the mast and platform C3.

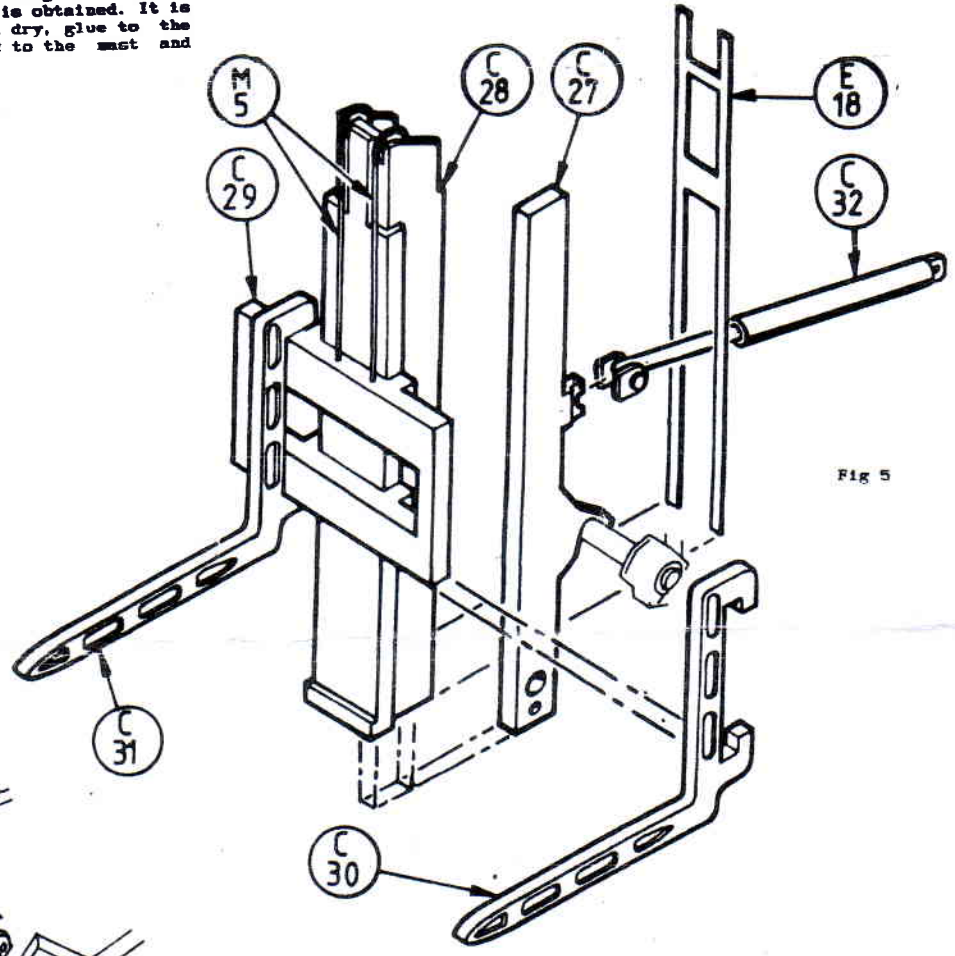


Fig 5

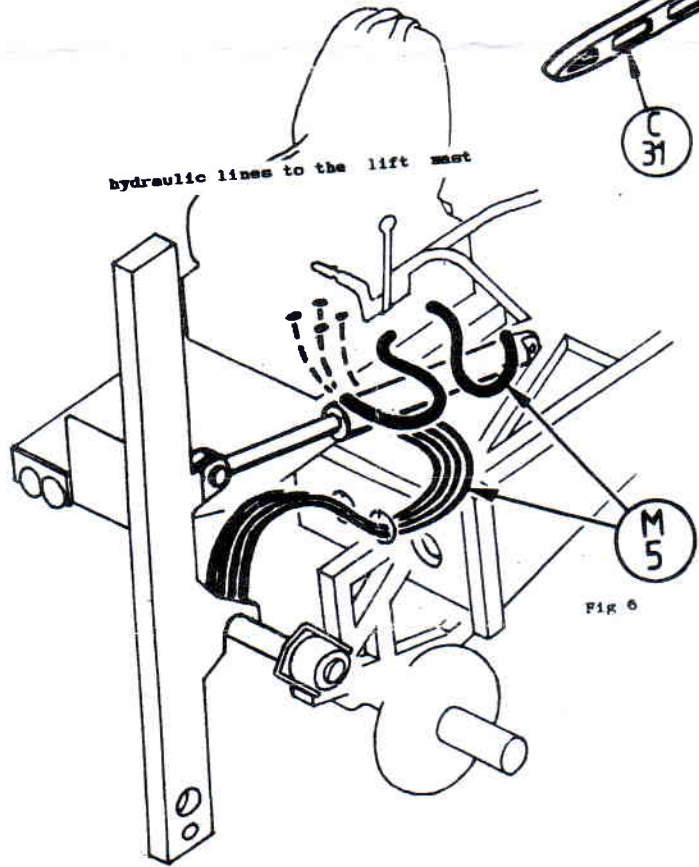


Fig 6

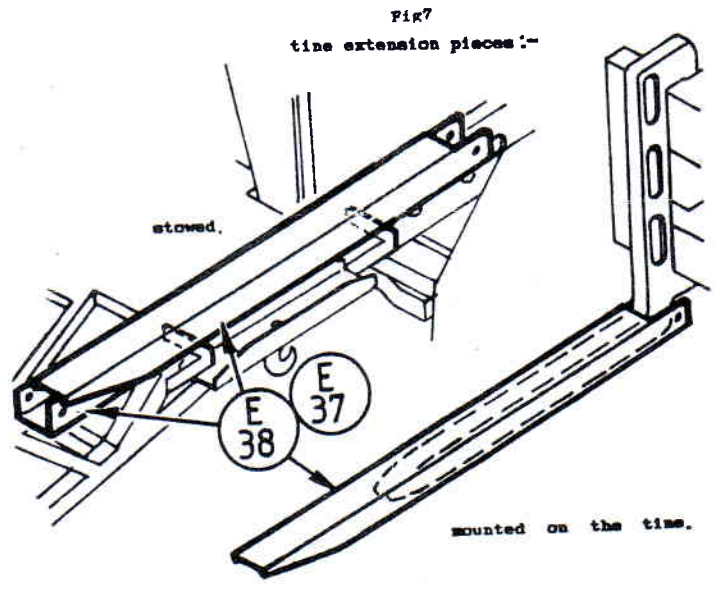


Fig 7
tine extension pieces:-

e) Using the copper wire M5 included and referring to the diagram, simulate the various hydraulic lines to the lift mast assembly and the ram. These can then be painted. Fig 6

f) Glue the tine extension brackets E5 and E6 onto the left side of the chassis as indicated. Fold the tine extension pieces E37 and E38, glue together and then paint. These items are stowed on the brackets E5 and E6, as shown. Fig 7

6 OTHER DETAILS

a) Wheel/tyres C44-C47 should be painted and when dry glued into place on the axles. Then glue the hub covers E41-E44 onto the protruding axle ends and paint when the glue has cured. Fig 8

b) Note that plastic tubing has been included which can be cut to length and used to fix the mudguards directly to the wheels as shown on the diagram. This will be nearly invisible but greatly increase the strength of this assembly.

The front mudguards E31 and E32 should be folded up as indicated. The right side mudguard can be painted and then glued into place under the drivers platform assembly. Then glue two lengths of the supplied plastic rod M7 underneath the left mudguard protruding from the notches as shown. These rods support the mudguard from the chassis side frame C1. Test fit the mudguard in place and trim the rods to the correct length. Then after painting the mudguard, glue into place, supporting the part until the glue has fully cured. See the diagram for the positioning of the rods on the chassis. Fig 9

c) Similarly fold the rear mudguards E45 and E46, glue plastic rods into place in the notches and test fit onto the chassis. The front rod rests under the chassis side members, the rear rods but onto the chassis frame sides. Therefore the front rods should be approximately 1mm longer than the rear ones. Paint the mudguards and when dry glue into place, supporting the parts until the glue has set.

d) Check the batteries C14 and C15 fit into the battery boxes E1 and E2, trimming with a file if required, paint the batteries and then glue into place.

e) Fold up the left front headlight platform E25 and glue into place on the front left chassis C1. Check the fit of the locating pin under the remaining headlight C41 into the hole in the platform and glue into place.

f) Carefully fold the sides of the bonnet E48, between the points where the tags are attached to the stitching. This will fit over the fuel tanks C24, C25, and the radiator cover E17, so check this fit! Then locate the air filter C43 into the bonnet E35 as shown, trimming the bonnet if required to obtain a good fit. The bonnet assembly can then be painted, and glued over the engine between the fuel tanks C24 and C25, and the radiator cover E17.

h) Fold the sides of the lifting hook beam E39 and then glue the hook E40 into place in the beam. This can then be painted and glued into place mounted on the chassis below the tie extension.

i) Paint the exhaust silencer C26 and then glue into place locating in the dipple moulded on the engine manifold C22.

j) Using the copper wire M5 included and referring to the diagram, simulate the various hydraulic lines to the lift mast assembly and the ram. These can then be painted.

k) Decals for the number plates can then be applied to the front and rear of the truck. Final paint details such as the lights and traffic reflectors, wheel hub nuts, lift hook and so on can be finished now.

DETAIL COLOUR NOTES

Light cluster colours are from the outside inwards:

Rear cluster, red, orange, white, red reflector above on battery box.
Front cluster, white, orange.

Hydraulic ram C32 is normally fitted with a sleeve to limit the travel of the lift. This is painted red; see box lid photo for details.

